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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,522	05/18/2006	Mitsuhiro Hirabayashi	112857-550	2045
29175	7590	05/22/2009	EXAMINER	
K&L Gates LLP P. O. BOX 1135 CHICAGO, IL 60690			DAZENSKI, MARC A	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,522	<b>Applicant(s)</b> HIRABAYASHI ET AL.	
	<b>Examiner</b> MARC DAZENSKI	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 2-3, 6, and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4-25-06, 12-04-06, 2-27-07, 6-11-07, 1-29-08, 10-08-08</u>    | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because there are two figures with the label of “figure 8;” the examiner assumes that the figure described on page 16 as “a diagram explaining respective entries of the management information of fig. 8” be labeled “figure 9.” Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

**Claim 2** is objected to because of the following informalities: the claim refers to “the real data side,” however there is insufficient antecedent basis for this in the claims. The examiner recommends it to read “a real data side.” Appropriate correction is required.

**Claim 3** is objected to because of the following informalities: the claim is dependent on itself. The examiner assumes that Applicant intended for the claim to be dependent on claim 1, and is therefore being interpreted as such. Appropriate correction is required.

**Claim 6** is objected to because of the following informalities: line 3 of the claim refers to “the space regions,” however there is insufficient antecedent basis for this in the claims. The examiner interprets it to mean “the free-space regions.” Appropriate correction is required.

**Claim 17** is objected to because of the following informalities: the claim reads “a file processing device according to claim 16,” but claim 16 is a method. The examiner interprets it to mean “a file processing method according to claim 16.” Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2621

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

**Claims 19-22 and 24** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 19-20, as well as 21-22 and 24, define a program and a recording medium, respectively, embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. Any amendment to the claim should be commensurate with its corresponding disclosure.

Art Unit: 2621

**Note:**

A "signal" (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-7, 10-13, 16-17, 19, 21, and 23** are rejected under 35 U.S.C. 102(e) as being anticipated by Iwano (US Patent 7,130,525), hereinafter referred to as Iwano.

Regarding **claim 1**, Iwano discloses a method of determining access position on recording medium and method of managing recording medium. Further, Iwano discloses a recording media management system that records data into units of EU and PRU, which reads on the claimed, "a file processing device for recording a file which has a format in which a plurality of real data are allocated and is formed of a real data block, in which the real data are integrated, and a management information block, in which a plurality of management information of the real data including at least information necessary to reproduce the real data allocated to the real data block are integrated in a hierarchical structure, on a recording medium," as disclosed at column

Art Unit: 2621

21, lines 20-25, 44-57; column 22, lines 5-13, 53-67; and exhibited in figures 1-2 and 43; wherein:

the PRU is padded with padding blocks when there is no post recording made which is the initial state and an address LUT is recorded into the EU Header, which reads on the claimed, "the real data block is recorded on the recording medium by intermittently reserving initial regions composed of free-space regions on the recording medium and recording management information of the initial regions regarding allocation to the real data for managing each of the initial regions after the real data are recorded," as disclosed at column 22, lines 43-48; column 24, lines 31-51; and exhibited in figures 5-6, 10-11, and their associated text; and,

the PRU's and EUS are recorded in regards to Logical Block Numbers, which reads on the claimed, "the management information block is recorded on the recording medium by recording a lower hierarchical block of management information corresponding to each of the real data and a lower hierarchical block composed of management information regarding the free-space regions in the initial regions which correspond to the above lower hierarchical block," as disclosed at column 27, lines 50-56 and exhibited in figures 11-13.

Regarding **claim 2**, Iwano discloses everything claimed as applied above (see claim 1). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 3**, Iwano discloses everything claimed as applied above (see claim 1). Further, Iwano discloses data being recorded onto a disk, which reads on the



Art Unit: 2621

claimed, "desired data is recorded in the initial regions while the initial regions are managed," as disclosed at column 46, lines 10-11; and,

EUS information is created for the recording of each of multiple scenes, which reads on the claimed, "the management information of the initial regions regarding the allocation to the real data side and the management information of the lower hierarchical block regarding the free-space regions are updated in response to the record of the desired data as well as the lower hierarchical block corresponding to the record of the desired data is formed to the management information block," as disclosed at column 24, lines 31-37.

Regarding **claim 4**, Iwano discloses everything claimed as applied above (see claim 3). Further, Iwano discloses using PRU Status and PR Existence to determine whether post-recording has been implemented in the associated EU, and the PRU area is filled with audio data blocks A\_BLK's when post-recording is made, which reads on the claimed, "wherein whether or not other data can be further recorded in the initial regions is determined by managing the initial regions," as disclosed at column 22, lines 24-30, 49-52; column 26, lines 15-35.

Regarding **claim 5**, Iwano discloses everything claimed as applied above (see claim 3). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 4 above.

Regarding **claim 6**, Iwano discloses everything claimed as applied above (see claim 3). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 4 above.

Regarding **claim 7**, Iwano discloses everything claimed as applied above (see claim 5). Further, Iwano discloses that audio dubbing occurs by recording only sounds afterwards over the already recorded original data, which reads on the claimed, “wherein other data recorded in the initial regions is recorded by overwriting data recorded in the initial regions,” as disclosed at column 22, lines 49-52.

Regarding **claim 10**, Iwano discloses everything claimed as applied above (see claim 1). Further, Iwano discloses that a post-recording sequence "PRS" comprises multiple PRU's, each PRU serving as a receptacle for recording audio dubbing data corresponding to one EU in an EUS, which reads on the claimed, “wherein the initial regions are regions in which sound data for post recording is recorded,” as disclosed at column 22, lines 49-52 and column 48, lines 26-30.

Regarding **claim 11**, Iwano discloses everything claimed as applied above (see claim 1). Further, Iwano discloses EUS Information has ID for distinction, size, title information, creation date, and the like, which reads on the claimed, “wherein the management information have an identifier for specifying data recorded in the initial regions,” as disclosed at column 24, lines 38-48 and exhibited in figure 5.

Regarding **claim 12**, Iwano discloses everything claimed as applied above (see claim 1). Further, Iwano discloses the Address LUT further comprises Number of EUS Stream Information which represents the number of scenes handles by the program, which reads on the claimed, “wherein the management information have information for showing the number of files that refer to data recorded in the initial regions,” as disclosed at column 25, lines 27-32.

Regarding **claim 13**, Iwano discloses everything claimed as applied above (see claim 1). Further, Iwano discloses the Address LUT further comprises Post Recording Unit Size which is the information as to the size of the PRU in each EU, which reads on the claimed, "wherein the management information have information for showing sizes of the space regions in the initial regions," as disclosed at column 24, lines 64-65.

Regarding **claim 16**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 17**, the limitations of the claim are rejected in view of the explanation set forth in claims 2-3 above.

Regarding **claim 19**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 21**, the limitations of the claim are rejected in view of the explanation set forth in claim 19 above.

Regarding **claim 23**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8-9, 14-15, 18, 20, 22, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwano (US Patent 7,130,525), hereinafter referred to as Iwano, in view of Ito et al (US Patent 7,292,781), hereinafter referred to as Ito.

Regarding **claim 8**, Iwano discloses everything claimed as applied above (see claim 3). However, Iwano fails to disclose wherein whether or not data recorded in the initial regions can be deleted is determined by managing the initial regions. The examiner maintains it was well known in the art to include the missing limitations, as taught by Ito.

In a similar field of endeavor, Ito discloses an AV data recording device and method, disk recorded by the AV data recording device and method, and AV data reproducing device and method therefor. Further, Ito discloses a deletion processing section that utilizes allocation descriptors in a file entry in a FID within a file management area to notify a logical block managing section when a logical block becomes free for post-recording, and then adding and modifying the allocation descriptors to ensure continuous reproduction, which reads on the claimed, "wherein whether or not data recorded in the initial regions can be deleted is determined by managing the initial regions," as disclosed at column 21, lines 14-45.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of determining access position on recording medium and method of managing recording medium of Iwano to include a deletion processing section that utilizes allocation descriptors in a file entry in a FID within a file management area to notify a logical block managing section when a logical

Art Unit: 2621

block becomes free for post-recording, and then adding and modifying the allocation descriptors to ensure continuous reproduction, as taught by Ito, for the purpose of decreasing the process amounts in recording secondary audio at the time of post-recording.

Regarding **claim 9**, Iwano discloses everything claimed as applied above (see claim 3). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 8 above.

Regarding **claim 14**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above, except Iwano fails to disclose wherein the real data block is recorded on the recording medium by sequentially, cyclically, and repeatedly recording the plurality of real data. The examiner maintains that it was well known to include the missing limitations, as taught by Ito.

In a similar field of endeavor, Ito discloses an AV data recording device and method, disk recorded by the AV data recording device and method, and AV data reproducing device and method therefor. Further, Ito discloses when recording of one VOB is completed during one logical block is being processed, a following VOB is recorded sequentially without providing any space, and a management file is recorded onto a management area of a disk at a final stage of a recording process, which reads on the claimed, "wherein the real data block is recorded on the recording medium by sequentially, cyclically, and repeatedly recording the plurality of real data," as disclosed at column 18, lines 1-3 and 41-43.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of determining access position on recording medium and method of managing recording medium of Iwano to include when recording of one VOB is completed during one logical block is being processed, a following VOB is recorded sequentially without providing any space, and a management file is recorded onto a management area of a disk at a final stage of a recording process, as taught by Ito, for the purpose of decreasing the process amounts in recording secondary audio at the time of post-recording.

Regarding **claim 15**, the combination of Iwano and Ito discloses everything claimed as applied above (see claim 14). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

Regarding **claim 18**, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

Regarding **claim 20**, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

Regarding **claim 22**, the limitations of the claim are rejected in view of the explanation set forth in claim 20 above.

Regarding **claim 24**, the limitations of the claim are rejected in view of the explanation set forth in claim 14 above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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